## American College of Radiology
ACR Appropriateness Criteria®

Penetrating Trauma–Lower Abdomen and Pelvis

**Variant 1:** Penetrating trauma, lower abdomen and pelvis. Suspected lower urinary tract trauma. Initial imaging.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL 10-30 mSv</th>
<th>Peds RRL 3-10 mSv</th>
<th>Rating</th>
<th>Median</th>
<th>Final Tabulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT pelvis with bladder contrast (CT cystography)</td>
<td>Usually appropriate</td>
<td>Limited</td>
<td>☢☢☢☢ 10-30 mSv</td>
<td>☢☢☢☢ 3-10 mSv [ped]</td>
<td>8</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
</tbody>
</table>

References: 2 (24857651) 4 (21897259) 6 (10992026) 12 (8432245) 13 (2042269) 14 (17056919) 15 (-3091864) 16 (2652855) 17 (12169358) 18 (16488281) 19 (15908546) 22 (16829271)

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<tr>
<th>Procedure</th>
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<th>SOE</th>
<th>Adults RRL 1-10 mSv</th>
<th>Peds RRL</th>
<th>Rating</th>
<th>Median</th>
<th>Final Tabulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluoroscopy retrograde cystography</td>
<td>Usually appropriate</td>
<td>Limited</td>
<td>☢☢ 1-10 mSv</td>
<td>☢☢</td>
<td>8</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
</tbody>
</table>

References: 2 (24857651) 18 (16488281) 22 (16829271)
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<tr>
<th>Procedure</th>
<th>Appropriateness</th>
<th>Radiation Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CT pelvis with IV contrast</strong></td>
<td>May be appropriate</td>
<td>☢☢☢ 1-10 mSv</td>
</tr>
<tr>
<td></td>
<td>Limited</td>
<td>☢☢☢☢ 3-10 mSv [ped]</td>
</tr>
<tr>
<td></td>
<td>References</td>
<td>Study Quality</td>
</tr>
<tr>
<td></td>
<td>2 (24857651)</td>
<td>4</td>
</tr>
</tbody>
</table>

| **Fluoroscopy retrograde urethrography**      | May be appropriate    | ☢☢☢ 1-10 mSv  |
|                                               | Limited               | ☢☢☢ 0.3-3 mSv [ped] |
|                                               | References            | Study Quality  |
|                                               | 2 (24857651)          | 4              |

| **Radiography pelvis**                        | May be appropriate    | ☢☢ 0.1-1 mSv   |
|                                               | Expert Consensus      | ☢☢ 0.03-0.3 mSv [ped] |
|                                               | References            | Study Quality  |
|                                               | 2 (24857651)          | 4              |
| **CT pelvis without IV contrast**             | May be appropriate    | ☢☢☢ 1-10 mSv  |
|                                               | Limited               | ☢☢☢☢ 3-10 mSv [ped] |
|                                               | References            | Study Quality  |
|                                               | 18 (16488281)         | 4              |

| **CT pelvis without and with IV contrast**    | Usually not appropriate | ☢☢☢ 10-30 mSv   |
|                                               | Expert Consensus      | ☢☢☢ 3-10 mSv [ped] |
|                                               | References            | Study Quality  |
|                                               | 18 (16488281)         | 4              |

<p>| <strong>Arteriography with possible embolization abdomen and pelvis</strong> | Usually not appropriate | Varies |
|                                                               | Limited               | Varies |
|                                                               | References            | Study Quality  |
|                                                               | 15 (-3091864)         | 4              |</p>
<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness</th>
<th>Radiation Risk</th>
<th>References</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiography intravenous urography</td>
<td>Usually not appropriate</td>
<td>Limited</td>
<td>⚠️⚠️⚠️ 1-10 mSv</td>
<td>2</td>
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<tr>
<td>US pelvis (bladder and urethra)</td>
<td>Usually not appropriate</td>
<td>Limited</td>
<td>0 0 mSv</td>
<td>2</td>
</tr>
<tr>
<td>MRI pelvis without IV contrast</td>
<td>Usually not appropriate</td>
<td>Limited</td>
<td>0 0 mSv</td>
<td>1</td>
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<tr>
<td>MRI pelvis without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Limited</td>
<td>0 0 mSv</td>
<td>1</td>
</tr>
<tr>
<td>Tc-99m MAG3 scan kidney</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>⚠️⚠️⚠️ 1-10 mSv</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix Key
A more complete discussion of the items presented below can be found by accessing the supporting documents at the designated hyperlinks.

**Appropriateness Category:** The panel's recommendation for a procedure based on the assessment of the risks and benefits of performing the procedure for the specified clinical scenario.

**SOE:** Strength of Evidence. The assessment of the amount and quality of evidence found in the peer reviewed medical literature for an appropriateness recommendation.

- **References:** The citation number and PMID for the reference(s) associated with the recommendation.
- **Study Quality:** The assessment of the quality of an individual reference based on the number of study quality elements described in the reference.

**RRL:** Relative Radiation Level. A population based assessment of the amount of radiation a typical patient may be exposed to during the specified procedure.

**Rating:** The final rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

**Median:** The median rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

**Final tabulations:** A histogram showing the number of panel members who rated the procedure as noted in the column heading (ie, 1, 2, 3, etc.).

Additional supporting documents about the AC methodology and processes can be found at www.acr.org/ac.